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10/728,545	12/05/2003	Peiya Liu	2003P18509 US	8799

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EXAMINER	
BROOME, SAID A	
ART UNIT	**PAPER NUMBER**
2628	

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/728,545	Applicant(s) LIU ET AL.	
	Examiner Said Broome	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-8,10-12,16-18 and 22-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-8,10-12,16-18 and 22-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This office action is in response to an amendment filed 3/13/2006.

2. Claims 1 and 27-32 have been amended by the applicant.

3. Claims 3, 4, 9, 13-15 and 19-21 have been cancelled by the applicant.

4. Claims 2, 5-8, 10-12, 16-18 and 22-26 are original.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 10-12, 16-18, 22-24, 28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price et al.(A Critical Evaluation of Multimedia Toolbook), in view of Calkins et al. (US 2004/0222992), in further view of Liu et al.(US Patent 6,321,244).

Regarding claims 1 and 32, Price et al. teaches all the limitations except an animation path from a starting position to an end position, a playback speed for the animation an saving said animation as a Standardized Generalized Markup Language (SGML) file. Price et al. teaches animation specified by a computer as described on page 29 second paragraph lines 1-3, therefore it is obvious that it contains a method for specifying animation by a computer, as recited in the preamble of claim 1. Price et al. also teaches providing or loading an image into an animation author for display on a display screen on page 18 second paragraph lines 1-2 and 7-9,

where it is described that the interface, which is illustrated on page 18, is provided with tools and icons capable of entering an animation object into an animation author and manipulating the properties of objects, which are described to be images or pictures on page 20 section 4.2 lines 1-3. Price et al. also teaches entering an animation path for an animation object into an animation author on page 43 section 4.3 lines 12-23 where it is described that an animation path is determined for animated objects to follow. Regarding claim 32, Price et al. teaches on page 29 second paragraph lines 1-3 the ToolBook application which specifies animation of animated objects by a computer as described on page 4 lines 1-3, as recited in the preamble. Again, Price et al. fails to teach an animation path from a starting to an end position, and a playback speed for the animation. Calkins et al. teaches an animation path containing a starting position in paragraph 0093 lines 1-3 and an end position in paragraph 0099 lines 1-2. Calkins et al. also teaches the repeated playback of an animation in paragraph 0101 lines 1-9, where it is described that an animation is restarted, or played again, and is played at a certain speed as described in paragraph 0102 lines 1-2. Price et al. and Calkins et al. fail to teach saving the animation as an SGML(standardized Generalized Markup Language) file. Liu et al. teaches saving the animation as an SGML(standardized Generalized Markup Language) file in column 3 lines 32-37, where it is described that an SGML or card-based document, which contains animation as described in column 6 lines 10-14 and as illustrated in Figures 2 and 3, are stored as SGML files as described in column 3 lines 61-62. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al., Calkins et al. and Liu et al. because this combination would provide an animation author that enables several animation functions for animated objects.

Regarding claims 10 and 11, Price et al. teaches a normal mode on page 43 section 5.4 lines 12-13 and page 44 lines 1-2, where it is described that an animated object is played independently on an animation path with its own specific speed, as described on page 29 line 4. However, Price et al. fails to teach a scheduling mode. Regarding claims 10 and 12, Calkins et al. teaches a scheduling mode in paragraph 0099 lines 1-6 where it is described that a specific speed property, which is a property that may be adjusted by the user as described in paragraph 0052 lines 1-2 and on page 6 paragraph 0052 lines 1-3, is designated for the duration of each animation of the object as described in paragraph 0039 lines 5-8. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al. and Calkins et al. because this combination would provide a broader range of animation alternatives through enabling several animation speeds for animated objects.

Regarding claim 16, Price et al. teaches all the limitations except entering an animation object into an animation array. Calkins et al. teaches storing animated objects into an array of objects in paragraph 0115 second column lines 11-16. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al. and Calkins et al. because this combination would provide efficient storage of animated objects in to an animation array.

Regarding claims 17 and 20, Price et al. teaches all the limitations except storing properties associated with animation objects that are stored in an animation array. Calkins et al. teaches that each animation object, which is stored in an animation array as described in paragraph 00115 second column lines 11-16, has a property associated with it in paragraph 0037 12-17. It would have been obvious to one of ordinary skill in the art to combine the teachings of

Price et al. and Calkins et al. because this combination would provide efficient storage of the properties of animated objects in to an animation array.

Regarding claim 18, Price et al. teaches all the limitations except modifying an animation object stored in an animation array. Calkins et al. teaches in paragraph 0054 lines 1-4 that animated objected may be modified, and stored in an animation array, as described in paragraph 00115 second column lines 11-16. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al. and Calkins et al. because this combination would provide efficient storage of animated objects in to an animation array and the ability to modify those objects if necessary.

Regarding claims 22 and 28, Price et al. teaches an animation path for animated objects, which would encompass a pipe, on page 43 section 5.4 lines 12-13. Therefore it would have been obvious to one of ordinary skill in the art to provide more than one animation path for an animated object. Price et al. also teaches specifying a fill in color for an object, such as a pipe, on page 21 second paragraph lines 1-5. Regarding claim 28, Price et al. teaches the ToolBook application, which specifies animation by a computer as described on page 29 second paragraph lines 1-3, therefore it is obvious that it contains a method for specifying animation by a computer, as recited in the preamble. Price et al. also teaches specifying a fill in color throughout the animation or runtime, as described ion page 21 second paragraph lines 1-2, therefore the fill in color would be specified at the start of the animation until the end of the animation.

Regarding claims 23 and 24, Price et al. fails to teach the recited limitations. Calkins et al. teaches specifying an animation path for an animated object, such as a pipe, from a current or

start position to a specified or end position on page 29 first paragraph line 4. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al. and Calkins et al. because this combination would provide the ability to efficiently add color to animated objects.

Claims 2, 5, 25-27 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price et al., in view of Calkins et al., in further view of Liu et al. and in further view of Herbstman et al.(US Patent 6,683,613).

Regarding claim 2, Price et al. and Calkins et al. fail to teach repeating the steps recited in claim 1 for each animation object. Herbstman et al. teaches repeating the steps for each animation object in column 6 lines 15-23. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al., Calkins et al. and Herbstman et al. because this combination would provide improved functionality through enabling the capability to repeatedly perform the steps recited in claim 1.

Regarding claim 5, Price et al. and Calkins et al. fail to teach calculating a new orientation for the animation object as a function of position of the object on an animation path and orienting the animation object during animation. Herbstman et al. teaches determining a new attribute or action for each animated object, which would therefore adjust and change the position and orientation of the object along the animated path, as described in column 6 lines 52-56. Herbstman et al. also teaches orienting the animation object during the animation in column 6 lines 52-54, where it is described that the orientation of the object is changed for a time interval

during animation. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al., Calkins et al. and Herbstman et al. because this combination would provide the capability to orient an animation object during animation along an animation path.

Regarding claim 25, Price et al. and Calkins et al. fail to teach the claimed limitations. Herbstman et al. teaches specifying a default condition for an animation object to have a pre-condition and post-condition in column 6 lines 15-17 where it is described that an animation object has an initial object property state or pre-condition, and also has a final object property state or post-condition associated with it, which are both defined for every animation by default as illustrated in the step 206 shown in the flowchart of Figure 3. Herbstman et al. also teaches that the pre-condition and post-condition are null initially in column 6 lines 6-67 where it is described that an initial object state is set to the object for time t_0, therefore before time t_0 the pre-condition, or initial object state, was initially null prior to the definition of the initial object state. Herbstman et al. also teaches a post-condition that is null initially in column 6 lines 15-23, where it is described that a final object state is defined, as illustrated in Figure 3 as element 206, therefore the post-condition is null initially before it is defined by the user. Herbstman et al. also teaches a READY or initial start state in column 6 lines 63-64, a RUN or resultant object state in column 7 lines 4-13, and a DONE or final object output state in column 7 lines 13-15. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al., Calkins et al. and Herbstman et al. because this combination would provide the storage of animated objects into an animation array which satisfies a pre-condition and post-condition in order to ensure smooth transition between the objects in the animation array.

Regarding claim 26, Price et al. and Calkins et al. fail to teach the claimed limitations. Though Herbstman et al. does not explicitly teach satisfying a pre-condition and post-condition for starting animation of an object, Herbstman et al. does teach an initial state or pre-condition that is determined for the animation object during a time interval of animation, in which at the end of the animation a post-condition or final output state is determined. Therefore it would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al., Calkins et al. and Herbstman et al. because this combination would provide the storage of animated objects into an animation array which satisfy a pre-condition and post-condition in which every object within that array along a time interval would be checked for those conditions in order to ensure smooth transition between the objects in the animation array.

Regarding claim 27, Price et al. teaches the ToolBook application, which specifies animation by a computer as described on page 29 second paragraph lines 1-3, therefore it is obvious that it contains a method for specifying animation by a computer, as recited in the preamble. Price et al. also teaches providing an animation object into an animation author for display on a display screen on page 18 second paragraph lines 1-2 and 7-9. Price et al. also teaches entering an animation path for an animation object into an animation author on page 43 section 4.3 lines 12-23 where it is described that an animation path is determined for animated objects to follow. Price et al. and Calkins et al. fail to teach specifying animation of the animation object with orientation as a function of the animation path. Herbstman et al. teaches determining a new attribute or action for each animated object, which would therefore adjust and change the position and orientation of the object, as described in column 6 lines 52-56. Herbstman et al. also teaches orienting the animation object during the animation in column 6

lines 52-54, where it is described that the orientation of the object is changed for a time interval during animation. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al., Calkins et al. and Herbstman et al. because this combination would provide the capability to orient an animation object during animation along an animation path.

Regarding claim 29, Price et al. teaches the ToolBook application, which specifies animation by a computer as described on page 29 second paragraph lines 1-3, therefore it is obvious that it contains a method for specifying animation by a computer, as recited in the preamble. Price et al. also teaches an animation authoring tool where a plurality of animated objects would be entered on page 18 second paragraph lines 1-2 and 7-9. Calkins et al. teaches storing animated objects into an animation array in paragraph 00115 second column lines 11-16. Price et al. and Calkins et al. fail to teach storing properties associate with each animated object including pre- and post-conditions and checking each entry of an object in the animation array for a pre-condition and post-condition. Herbstman et al. teaches storing properties associate with each animated object including pre-condition, or initial object state, and post-condition, or final object state, in column 6 lines 15-23 and 52-62. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al., Calkins et al. and Herbstman et al. because this combination would provide smoother animation by providing parameters at the beginning and end of each animation, which improves the transition from one animation frame to the next.

Regarding claims 30 and 31, Price et al. teaches on page 29 second paragraph lines 1-3 the ToolBook application which specifies animation of animated objects by a computer as described on page 4 lines 1-3, as recited in the preamble. Price et al. also teaches providing an

animation object, such as a pipe, into an animation author for display on a display screen on page 18 second paragraph lines 1-2 and 7-9. Price et al. also teaches entering an animation path for an animation object into an animation author on page 43 section 4.3 lines 12-23 where it is described that an animation path is determined for animated objects to follow. Price et al. also teaches specifying a fill in color for an object, such as a pipe, on page 21 second paragraph lines 1-5. Regarding claim 28, Price et al. also teaches specifying a fill in color throughout the animation or runtime, as described on page 21 second paragraph lines 1-2, therefore the fill in color would be specified at the start of the animation until the end of the animation. Price et al. fails to teach the remaining claimed limitations. Calkins et al. teaches storing animated objects into an animation array in paragraph 00115 second column lines 11-16. Price et al. and Calkins et al. fail to teach specifying an animation of than object with orientation as function of an animation path. Herbstman et al. teaches determining a new attribute or action for each animated object, which would therefore adjust and change the position and orientation of the object along the animated path, as described in column 6 lines 52-56. Herbstman et al. also teaches storing properties associate with each animated object including pre-condition, or initial object state and post-condition, or final object state, in column 6 lines 15-23 and 52-62. Herbstman et al. also describes in column 6 lines 15-23 and lines 49-62 that each time interval consist of a pre-condition and post-condition, and that every entry at each time interval may be modified, which would also enable every entry to be checked as well. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al., Calkins et al. and Herbstman et al. because this combination would provide an improved the capability to specify a specific color

for the animated object and reduce error through the ability to orient an animation object during animation along an animation path.

Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price et al., in view of Calkins et al., in further view of Liu et al. and in further view of Kim et al.(US 2003/0128215).

Regarding claims 6 and 8, Price et al., Calkins et al. and Liu et al. fail to teach the limitations. Kim et al. teaches representing an animated path as a series of sampling points in paragraph 0069 lines 1-10 where it is described that an animation path is sampled to generate data relating to points within along the time interval. Kim et al. also teaches that at each given sampling point, a deviation, or error difference, between a given sampling point and the next generated sampling point is determined in the same paragraph lines 3-8. Kim et al. also teaches comparing the deviation with a predetermined limit in the same paragraph lines 3-10. Though Kim et al. does not explicitly teach recalculating the orientation, Kim et al. does teach enabling a comparison of the deviation with a predetermined limit to determine if the deviation exceeds that predetermined limit in lines 3-10, therefore it would have been obvious to one of ordinary skill to combine the teachings of Price et al., Calkins et al., Liu et al. and Kim et al. because this combination would provide a recalculation of the orientation of the animation object to reduce error while animating the object along an animation path.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Price et al, in view of Calkins et al., in further view of Liu et al. and in further view of Colleran et al.(US Patent 6,075,532).

Regarding claim 7, Price et al., Calkins et al. and Liu et al. fail to teach the claimed limitations. Colleran et al. teaches a formed boundary box for an animated object in column 2 lines 58-60. Colleran et al. also teaches calculating a new orientation or position as a function of position of the animated object on the animation path in column 6 lines 66-67 and column7 lines 1-15, where it is described that the new orientation or position of the boundary box is adjusted depending on the next position of the animated frame as it moves along an animated path, and moved to the new orientation as illustrated in Figure 2B as element 128. It would have been obvious to one of ordinary skill in the art to combine the teachings of Price et al., Calkins et al., Liu et al. and Colleran et al. because this combination would provide the reduction of error through adjustment of the orientation of the boundary box surrounding the animated object as it moves along an animated path.

Response to Arguments

Applicant's arguments with respect to claims 1, 2, 5-8, 10-12, 16-18 and 22-32 have been considered but are moot in view of the new ground(s) of rejection.

The applicant argues that the references Price et al, in view of Calkins et al., in further view of Liu et al., Herbstman et al., Kim et al. and Colleran et al. used in several combinations of the 35 U.S.C. 103(a) rejection of claims 1, 2, 5-8, 10-12, 16-18 and 22-32 do not teach

specifying animation via a text description by saving the animation file as a Standardized Generalized Markup Language (SGML). The examiner maintains the rejection because Liu et al. teaches storing files or documents as SGML files in column 3 lines 61-62 ("...SGML documents are generally created for storing and preserving technical information.") and in column 2 lines 38-41 ("Once technical information is stored in an SGML structure, it can be manipulated, restructured, and formatted for many different purposes..."). Liu et al. also teaches that the SGML files are documents that contain animation data and may be represented as card data, as described in column 3 lines 31-36 ("Throughout this specification, presentation slides are referred to as cards, and the SGML documents that are to be rendered as presentation slides are referred to as Card-Based Documents (CBD)...") and in column 6 lines 10-14 ("...other supporting information such as header, footer, titles, and auxiliary control for audio, video, and animation, are also required during presentation."), as illustrated in Figures 2 and 3. Therefore it would have been obvious to one of ordinary skill in the art to provide an animation application or player, as taught by Price et al. on page 124 section 5.0 second paragraph lines 1-3 ("Multimedia ToolBook gives you all the tools you need to create graphical Windows applications that combine user interactivity, powerful data and text manipulation, along with multimedia graphics, animation..."), with a SGML animation file format known in the art for specifying animation, as described in the Specification on page 3 lines 4-7 ("The specified animation can then be saved as a Toolbook TM book or an SGML file. SGML (Standardized Generalized Markup Language) is a text-based language for describing the content and structure of digital documents.").

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Said Broome whose telephone number is (571)272-2931. The examiner can normally be reached on 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571)272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Broome SB
5/22/06

ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER